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EPIDEMIOLOGY

No. 245



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BRIEFS

CHITTAGONG CHOLERA DEATHS--Chittagong, July 11--The cholera has claimed the lives of five persons in Kushum pura and Jiri nions of Patiya thana in the last few days. According to official sources, the cholera has broken out in these two unions since July 4. A good number of people have now been suffering from this disease in these areas. The dead include two minor boys. They are Order (6) and Jahed (8). The name of three others dead could not be known. Large scale inoculation should be immediately taken up to check the further spread of this disease. There is also scarcity of water purification tablet in the affected areas. [Text] [Dacca THE BANGLADESH OBSERVER in English 13 Jul 81 p 3]

CHOLERA IN KUMAR PARA--Cholera claimed three lives in Kumar Para of Panchlaish Thana in the last few days. According to a report Cholera broke out first in the house of one Sultan Driver of the area. Two infants and one middle aged woman died of the disease in that house. Mass inoculation needs to be immediately taken up to check further spread of cholera in Kuma Para it is felt. [Text] [Dacca THE BANGLADESH OBSERVER in English 17 Jul 81 p 10]

MORE CHITTAGONG CHOLERA--Chittagong, July 15--Cholera has claimed the lives of five more persons in Binamara village of Chokoria thana in the last few days. Three of the victims are Shahena Khanam, Belaluddin and Ayesha Khatun. Seven others have been suffering from cholera. Mass inoculation is badly needed in the cholera affected areas of Chokoria thana. [Text] [Dacca THE BANGLADESH OBSERVER in English 17 Jul 81 p 10]

CSO: 5400/7116

CUBAN DENGUE FEVER EPIDEMIC CONCERNS HEALTH OFFICIALS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 29 Jul 81 p 14

[Text] The dengue fever epidemic which has already caused over 100 deaths in Cuba since May concerns the technicians of Brazil's Health Ministry who are responsible for major endemic diseases. According to the specialists, the disease is transmitted by the same mosquito that carries urban yellow fever, *Aedis Aegypti*, which is reappearing virtually throughout Brazil's coastal area. In Cuba's case, the dengue must have been brought in by a person with the disease, probably from Haiti or the Dominical Republic.

The same thing could occur in Brazil, since there are already established conditions for it, such as the existence of *Aedis Aegypti* foci in several cities. Dengue, the specialists explain, is fatal especially in children under 15 years of age, in whom the disease usually appears in hemorrhagic form. Early symptoms of "dengue shock syndrome or hemorrhagic fever" frequently include fever, upper respiratory symptoms, headache, abdominal pain and vomiting.

Dengue has appeared in Venezuela, Jamaica, Puerto Rico, United States, Japan and Greece, among other countries. According to the health officers, the Caribbean area in particular is subject to periodic major dengue epidemics, such as have occurred in recent years. In 1964 there were 1,500 cases recorded in Jamaica, 27,000 in Puerto Rico and 10,000 in Venezuela.

Poliomyelitis

Health Minister Waldyr Arcoverde is leading a meeting with northern region health secretaries today at the School of Nursing in Manaus, to define the strategy in the Amazon region for the poliomyelitis vaccination campaign on 15 August. Nationwide, about 20 million children up to 5 years of age should be immunized. In Amazonas, 320,000 children in this age group will receive the vaccine.

Arcoverde said yesterday that the Health Ministry's basic concern is to intensify epidemiological vigilance in the country, "to find quick answers to confront possible outbreaks." He reported that the next mass polio immunization campaign will employ the same strategy that was used in last year's campaign "with absolute success." He expects to reach at least the same percentage of children in the 1981 campaign as were vaccinated in 1980.

"We are working so that before too long we can dispense with the polio vaccination for the age group from 0 to 5 years and concentrate on the group from 0 to 1 year, but this is at least 2 to 3 years away," the health minister said.

Minister Arcoverde lamented that there are still cases of malaria and yellow fever in Brazil. He commented: "Malaria will never be eradicated as long as the country has forests." He said that malaria is being combated in such a way as to restrict it to the critical areas of the Amazon region.

6362

CSO: 5400/2183

BRAZIL

HEALTH MINISTER LAUNCHES NATIONAL POLIO IMMUNIZATION CAMPAIGN

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 31 Jul 81 p 12

[Text] In a press conference yesterday, Health Minister Waldyr Arcoverde officially launched the national polio immunization campaign, which will be operating normally, pursuant to a directive of the National Petroleum Council. The minister believes that at least 500,000 people will be reached in the polio campaign, the cost of which he called "incalculable," since the federal government is covering only the cost of the vaccine, spending 182.5 million cruzeiros to acquire 80 million units.

The health minister noted that the publicity campaign for National Polio Immunization Day will go on the air tomorrow. The campaign was prepared by the ministry's [department of] Media Coordination. Four films, featuring the slogan "That Droplet Is Still Necessary," will be aired at least 20 times a day by over 100 television stations. In addition, four "spots" with the same message, backed by the music of composer-interpreter Rosa Panos (who composed the theme for the breast-feeding campaign), will be carried by 900 radio stations and 3,900 public address systems. Sports lottery fliers, billboards and pamphlets distributed throughout the country will explain the need for the third dose of polio vaccine. The first two were administered in June and August 1980.

According to the minister, 30,000 posts will be functioning on vaccination day, and are now being supplied with the necessary doses of vaccine. Every state, including Sao Paulo, has already received the supplies of vaccine requested. To collect and pass on information regarding the progress of the 15 August inoculation, the [department of] Media Coordination will set up a center in Brasilia. Minister Arcoverde will continue to conduct regional meetings to discuss the states' preparations for the campaign. He will be in Goiania today, in El Salvador on Monday, in Sao Paulo on 7 August, and in Porto Alegre on 12 August.

Two More

Minister Arcoverde foresees the need for at least two more mass vaccination campaigns for children up to 5 years of age to arrive at a satisfactory level of control of the disease, after which it will only be necessary to vaccinate infants less than 1 year old. "We can never talk in terms of eradication, but the epidemiological vigilance service will let us know precisely when we have poliomyelitis under control," Arcoverde said. He noted that, whereas 1,362 cases occurred in 1981, up to July of this year only 189 cases were reported and only 13 confirmed cases were recorded.

Regarding the contamination of the first lots of vaccine imported from Yugoslavia, the minister believes the public reaction will be "highly positive, because the people can sense the maturity of our approach. We have demonstrated that we have a quality control service that really identifies the three qualities a vaccine must have to be acceptable for application: sterility, innocuousness and potency." The Yugoslavian vaccine did not meet the sterility requirement, which is not the case with the 50 million doses of vaccine now imported from Belgium.

The vaccines were acquired by CEME [Central Enterprise for Medicines]. Of the 50 million doses, 2.5 million have been distributed for routine vaccinations and 35.3 million for the campaign. Over 12 million doses have been held in Rio for use in the event of an emergency.

8362

CSO: 5400/2183

BRIEFS

RIO MENINGITIS OUTBREAK DENIED—State and municipal authorities denied again yesterday that there was a meningitis epidemic in Rio, although 43 people were confined yesterday in the Sao Sebastiao isolation hospital in Caju. Elodir Pereira de Rocha, director of the Epidemiology Department of the Municipal Secretariat of Health, said that only four of those cases were of the meningococcic type, which is contagious, but Dr Waldir Tavares, director of the Sao Sebastiao hospital, reported that at least six people had contracted meningococcic meningitis. Of the 43 meningitis cases recently admitted to the Sao Sebastiao Hospital, 10 have been released and 33 are still interned. Almost all of these are still undergoing examination. It is known that meningococcic meningitis cases have been found in Araruma (in the Lagoon Region), in Angra dos Reis (in the south of the state), in Itaguaí (in Lower Fluminense) and in the Rio suburb of Bonsucesso. The director of Sao Sebastiao Hospital does not believe there is cause for alarm, since only 10 percent of all the meningitis cases are meningococcic, and this is not unusual for this season, when the weather is cold and people spend most of their time in enclosed areas. He also assured that the number of cases registered in July was "more or less" equal to the number registered last year. Yesterday Abelard Coulart, mayor of Itaguaí, asked the municipal health secretariat to take a survey of the meningitis cases occurring in recent weeks in the second district of Seropedica, bordering the old Rio-Sao Paulo highway, where half the 80,000 inhabitants of the municipio reside. Seropedica is inhabited by low-income families and receives several families a day from the interior and the northeast. The mayor said that 3 months ago 10 cases of meningitis were registered in the district, but he could not say whether they were of the meningococcic type. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 31 Jul 81 p 12] 6362

MEASLES, WHOOPING COUGH OUTBREAK—Although it has already been controlled in some areas, the outbreak of measles and whooping cough that attacked the Yanomí Indians living in Aoriana and Amazonas is continuing to spread, and has now reached several tribes that live on Brazil's border with Venezuela. FUNAI [National Indian Foundation] has not yet made any contact whatever with the Venezuelan Government, despite the natives' concern that the epidemic may already have attacked Ianomani groups living outside Brazil. FUNAI feels that its aid to the region has been effective, although it is depending on a single "Buffalo" plane and one helicopter to attend to all the affected communities in areas that are hard to reach. According to FUNAI, the Indians are being attended by SUCAM [Superintendency of Public Health Campaigns], which is vaccinating the tribes not yet affected by the outbreak, by the LBA [Brazilian Welfare Legion], by FUNAI's mobile health team and by 6th-year medical students of the Santa Maria University in Rio Grande do Sul. Two advance-post hospitals

have been set up in the villages of Tabaxina and Palimiu, and the more seriously ill Indians are being taken to Boa Vista. Yesterday the commission for creation of the Ianomani Reservation issued a bulletin stating that the lack of a preventive medicine program in the Surucucu range is the main reason for the epidemic, which is still spreading "despite last-minute relief measures." The commission members say that the infestation of the Indians is the result of indiscriminate contacts with invading agents, prospectors and settlements that are being rapidly installed in the Ianomani's area. Some 4,500 Indians live in the Surucucu range alone, and there the epidemic has already reached almost all the villages. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 1 Aug 81 p 10] 6362

CSO: 5400/2183

SPRAYING, OTHER ACTIONS TO COUNTER DENGUE NOTED

Havana VERDE OLIVO in Spanish 12 Jul 81 pp 9-11

[Article by Roberto Casin Medina: "Implacable Persecution"]

[Text] "Total war has been declared on the *Aedes aegypti*," a public health official told me before we began our tour to observe, in all its magnitude, the national campaign that thousands of men and women have been waging for weeks to eradicate the mosquito that carries the dengue virus.

Our brief visit to the Office of Vice Minister of Hygiene and Epidemiology confirmed that evaluation: One could fairly breathe the emergency in the air. The constant coming and going of persons from one place to another, the incessant ringing of telephones, the collation of data and the timely adoption of extraordinary measures combined to create a certain atmosphere of an army staff in wartime.

The epidemic that had broken out on the edge of the capital was spreading toward the interior of the country, apparently unstoppable.

One of the first of the many decisions adopted, required by the urgency of events, involved the creation of a National Operations Group made up of specialists and representatives of organs of the central government administration and mass organizations, under whose supervision and control the great battle against the *Aedes aegypti* and the entire clinical effort put in motion because of the persons affected by the virus -- mainly children -- have been developed.

Laboratory studies have shown with precision that the epidemic was caused by a type of dengue different from the one that spread throughout the country in 1977-1978. It is now the No 2 virus, one of four possible strains that have circulated in the Caribbean area for years in endemic form.

The fact that no vaccine existed in the world to fight the virus meant that from the very beginning, all efforts had to be aimed in two main directions: medical attention as a means to reduce or check the effects of the epidemic outbreak and the immediate planning of a prophylactic operation aimed at wiping out the disease carrier, the *Aedes aegypti* mosquito.

The lack of widespread health awareness would be the first ostensible obstacle in practice. The accumulation of stagnant water and useless containers left out in the open in direct violation of urban regulations and the most basic standards

of hygiene combined to show the vital point where the mosquitos had to be attacked immediately: in their breeding grounds.

Quantities of material and human resources were allocated at once to support the campaign for the elimination of the *Aedes aegypti*. The mainsprings of the mobilization of the people went to work in their diverse forms, embodied in countless members of the CDR [Committees for the Defense of the Revolution] and health brigades from the FMC [Federation of Cuban Women], volunteers and activists belonging to the mass organizations, all of which assumed a major role in the field in eradicating the carrier.

Two key products would henceforth join the main arsenal in the fight against the mosquito: the larvicide "abate" and the insecticide known by the name "malathion."

Practically in a matter of hours, from the time the outbreak was discovered and its nature was known, the enormous efforts of our party and government were aimed at those international market places that could supply the products in the time and amounts needed.

Thus, under the watchword "Death to the *Aedes Aegypti*," a national health campaign was put into operation. By virtue of its scope, constancy and duration (already underway for a month), it has become an implacable persecution of the agent that carries the disease! The purpose is one and the same, a purpose outlined by the vice minister of hygiene and epidemiology of the Ministry of Public Health: "We cannot allow this type of dengue to become endemic in Cuba."

Air and Land Fumigation

Our tour took us to the airport that functions as a base for the AN-2 airplanes which, on a daily basis and flying so low they practically skim the ground, fumigate the heart and suburbs of the capital with malathion.

"Basically, we are fumigating the populated areas and those with the heaviest concentration of population on the basis of daily reports made in every municipality to determine the incidence of disease in the different zones," Benigno Miranda, head of the technical department of agronomy of Agricultural Aviation, explained.

Flights are made during the hours of greatest activity of the adult mosquito, from 0600 to 0830 hours and at the same hour in the afternoon, the time when the *Aedes aegypti* emerges from the shadowy corners of its habitual home.

Although this is also the time of greatest activity at the airfield, throughout the rest of the day, technicians, mechanics and public health personnel work feverishly to have everything ready. This is the daily routine at all bases, where between 15 and 17 planes of this type are fumigating throughout the country.

The constant bustle and tension grow until the time of departure.

"There is a great deal of work left to be done and we cannot waste a minute," Dr Cesar Gonzalez, head of the air spraying team, told me.

Each time that one of these planes takes off, the cost of the flight, without counting what is spent on the insecticide, is around 4,000 pesos. In Havana alone, between three and five planes are used every morning and afternoon. This gives an idea, although incomplete, of how the resources of a socialist country can be mobilized to protect the health and lives of its people.

The human aspect is naturally much more important than the millions of pesos which such a campaign costs the country. "When we were given the task of the air spraying," Juan J. Valentin told us from the cockpit of his AN-2 plane, "all the pilots took up their duties with the responsibility that the lives of our people demand and we have done everything possible to try to contain the outbreak of the epidemic through our work."

On the city sidewalks, tirelessly covering block after block, inside all the homes within the confines of every municipality of the country, thousands of men carry on their backs the fumigation equipment for spraying "in every nook and cranny," as one of the health soldiers defined the task. He added: "On the average, every man does 40 homes, but to tell the truth, we are fumigating much more."

Application of the abate naturally goes much more slowly and consequently, the daily average is lower, for in this case, the health worker, like a private detective, must spend much more time in each house or place he visits, seeking out signs of possible infestation or recipients with stagnant water. Nevertheless, Antonio Calvo says, in recent days, they have been "working very hard, without any limits on their time for cooperation."

On the trail of the spraying equipment: bazookas, packs, electric sprayers and Leco pull-type dusters, we arrived at the small workshop which the Ministry of Public Health Furniture and Equipment Repair Unit has in the capital. There, putting in exhausting days, a small group of workers had, by the time of our visit, completed over 500 repairs on such equipment, generally quite delicate, in a little over three weeks.

"We are now working until eight o'clock at night," the administrator told us, "but during the early weeks, we were sometimes here until eleven or twelve o'clock. We are not complaining. Everyone has responded in an admirable manner."

The avalanche of new equipment, especially the electric sprayers and Leco dusters, meant that the workshop's maintenance departments had to be expanded, but in addition, an unexpected difficulty in an equipment nozzle having to do with the dose of insecticide made it impossible to spray inside the homes.

It was an apparently simple matter, but it tied up a main link in the chain being stretched around the *Aedes aegypti*. There was a danger that through the breach, the rest of the great effort being made to eradicate the mosquito would slip away.

With the mastery typical of a skilled worker devoted to his craft, Adrian Denis Clemente, spurred on by the concern of the workshop administrator, set about finding a solution to the problem and he did indeed find one. The mere opening of another orifice in the nozzle removed the difficulty and the new sprayers could begin to do their job.

Hospitals

In the nation's hospitals, the determination to minimize the aftereffects of dengue in its victims has been equally admirable. All the doctors, nurses, aides and service workers have worked in perfect harmony to care for their patients.

One stop on our tour was the Pediatrics Teaching Hospital of Central Havana, where the director, Dr Jose Gonzalez Valdes, told us that some 150 beds had been set up for dengue victims and that three wards were set aside for the epidemic. "We have strengthened our guard with three medical teams. After five o'clock in the afternoon, one-third of the personnel remains at the hospital," he said.

Care of patients has been constant, despite the large number of persons admitted every day (average of 30 or 40 cases a day). Relatives of the patients have been grateful for everything done at the hospital.

Elvira Martinez, grandmother of a little girl admitted, expressed her admiration for what she had seen and her satisfaction over the improvement in her granddaughter. "I was talking with the other mothers only today about the magnificent care given at this hospital. There is scarcely any difference between the concern of the doctors and nurses and our own concern."

We asked about the medicines given to persons suffering from dengue and a doctor told us: "There is no single treatment. It depends on the symptoms of the patient during the 7 to 10 days the patient generally stays with us. If the patient is suffering from shock, we use dextran, a hypertonic substance. In order to replace proteins possibly lost, we use albumin, and for other situations, we have glucose solutions, different diets, gastric rest, and so on. In our hospital, shock, complications, bleeding, and so on, have occurred in less than 10 percent of all cases."

The visit to the hospital by Commander in Chief Fidel Castro, who was interested in seeing how the sick children were doing, left nurse Julia Cardona, who works in intensive therapy, very impressed: "Imagine, when I saw him, I could scarcely speak. He arrived and asked about the children. He was interested in everything and everybody. He spoke with them very affectionately. In short, he was as concerned about his people as ever."

Behind the retaining wall built around dengue in this hospital, the work of the nurses is also unceasing. "The effort of all of them has been extraordinary," said Berta Castellon, head nurse, "despite the fact that we have had some comrades who have fallen ill and have had to work with half the personnel we need. Even so, aside from the normal schedule, they work an additional eight hours every other day. For the time being, our effort has been crowned with success because not one child has died."

By the middle of last week, 2,491 cases of dengue had been handled at Carlos J. Finlay Hospital, nearly one-fifth of them children.

Since pediatrics is not the only area of specialization at the hospital, we suggested starting our visit there for the purpose of seeing the special measures adopted in order to care for the sick children, who were mainly from the municipalities of Lisa, Marianao, Playa and Bauta.

The head of pediatrics, Lt Col Gonzalo Alvarez Flores of the medical services, accompanied us throughout the tour, providing us with detailed information: "In addition to the 83 beds available for adults, we have double the number for children. We now have 247 beds instead of 123, more than half of them used for dengue patients."

While we talked with doctors, nurses and a number of mothers in the hallway of one of the wards, the praiseworthy work of the clinical laboratory emerged. "They make a valuable medical contribution," one pediatrician commented. And indeed, without the pertinent research done quickly and professionally, the work of the doctors would be a struggle in the dark, a matter of mere suppositions.

We therefore decided to see what went on there on the lower floor, in the hospital clinical laboratory. What we saw did not belie the comments we had heard. In the emergency section alone, some 500 analyses are normally performed daily, and the quantity has now doubled, without damaging the required precision or quality and without getting in the way of the usual work required by all specializations in the hospital. Only one adjective would do: astonishing. However, one technician, bent on revealing his secret, took advantage of the opportunity to whisper in my ear: "Do you see that woman? She is the key to the good work done in the laboratory."

The woman was the head of the department, Dr Carmen del Busto, who answered our questions as follows: "They are the key to everything. Work has increased and no one has backed off. The collective attitude could not be better, including that of a group of students who recently graduated and who, during their vacation, have been working with us for two weeks. Cleaning personnel, the technicians, everyone is worthy of praise."

That accurate appraisal of the effort of others at the expense of one's own merit is the general tone of a campaign which the people have undertaken against the effects of the dengue epidemic, in a pitched battle with the mosquito that carries the virus. It is a battle of incessant activity, which from the beginning has had the look of implacable persecution, a no-holds-barred fight against the adversary, until the complete eradication of the *Aedes aegypti*.

11,464
CSO: 5400/2167

BRIEFS

INTRAVENOUS SOLUTIONS SOLD ILLEGALLY--The Ministry of Health has warned the public that it is dangerous to buy intravenous infusions from unauthorized persons. A statement issued by the Ministry in Accra reminded the public that it was also illegal for unauthorized persons to sell such infusions and other drugs they buy from unauthorized places. It explained that storage conditions at those unauthorized places could not be guaranteed and the infusions stored were likely to deteriorate very quickly. The statement said the warning followed information received by the Ministry and the Pharmacy Board that intravenous infusions were being sold at exorbitant prices by some unauthorized people. It said the Intravenous Infusions Limited at Kofondua sells its products to only the Ministry of Health, Military Hospital, Police Hospital, mission hospitals, quasi-government hospitals, private hospitals and clinics. "The Ministry and the Pharmacy Board, therefore, appeals to the public to report to the police, the Pharmacy Board's office at Adjabeng near the Kingsway Stores in Accra, anyone found selling infusions at unauthorized places, the statement added.--GNA [Text] [Accra GHANAIAN TIMES in English 4 Aug 81 p 8]

CSO: 5400/5236

INDIA

OFFICIALS REPORT HIGH RATE OF TUBERCULOSIS IN NARAYANGANJ

Dacca THE BANGLADESH OBSERVER in English 9 Jul 81 p 8

[Text] Narayanganj July 8--High incidence of pulmonary Tuberculosis accompanied by adequate segregation and treatment facilities constitutes a major health hazard to the people of this port town of Bangladesh.

According to an official source the number of people suffering from this serious and contagious disease is increasing alarmingly every year here due to the closure of the 25-bed TB hospital.

Narayanganj with a population of more than four lakhs, has according to a conservative estimate over 15,000 TB patients and about 18,000 suspects which account for about five percent of the total population.

The 25-bed TB hospital was inaugurated on February 2, 1970 at Doebhog area aided by Bangladesh National Anti-Tuberculosis Association in order to render specialized treatment to the people suffering from tuberculosis. But since August 1971 it has been closed down due to paucity of funds and other technical difficulties. Now it is causing much hardship to the population of this region.

However, the Narayanganj branch of Bangladesh National Anti-Tuberculosis Association opened a TB clinic in the premises of the closed TB hospital in the month of February 1976. When contacted a source of the Narayanganj branch of Bangladesh National Anti-Tuberculosis Association said that they are now rendering free medical service to the innumerable TB patients on Sundays. He further added that no arrangements for conducting survey work and X-ray was made as yet. But the number of TB patients attending the TB clinic is increasing the source said.

According to the bulletin published by the Bangladesh National Anti-Tuberculosis Association nearly 11 lakh people suffer and one lakh people die of tuberculosis every year in Bangladesh. Tuberculosis is one of the major health hazards of this country, taking a heavy toll of human lives every year. Only dedicated human efforts could stop this disease from becoming an epidemic. Today tuberculosis can be cured.

CSO: 5400

LACK OF FUNDS TO FIGHT GASTROENTERITIS DEPLORED

Calcutta THE STATESMAN in English 18 Jul 81 p 3

[Text] Calcutta Corporation did not have the capacity and the resources to check cholera and gastro-enteritis in the city, Dr G. C. Das, said health officer, on Friday. There was urgent need for improving the drainage system, the quality of water and sanitation in many areas of Calcutta without which it was impossible to eradicate the diseases, Dr Das said. The admission of 18 fresh cases of cholera and gastro-enteritis to the Infectious Diseases Hospital from midnight on Thursday till noon on Friday was officially announced. No death was, however, reported.

Three of these cases were from the Tiljala area, M. A.K. Roy, Commissioner, Calcutta Corporation said. Though reports of gastro-enteritis and cholera were received from other areas during the day, according to informed sources, Mr Roy did not give details. It was learnt that the disease had spread to the adjoining Tangra area (wards 59 and 60). Four people were admitted to hospital on Thursday and two on Friday.

While everybody was concerned about cholera attacks, the gastro-enteritis menace in the city was being overlooked, Dr Das said. About 532 people died of this during 1980, he said. He could not provide this year's figures. Gastro-enteritis is a killer disease too, he said, and added that various factors were responsible for it. One could contract the disease from state food or contaminated water.

The drive against exposed food which was sold on the streets had been stepped up, Dr Das said. Nearly 359 kg of cut fruit like pineapple, sugarcane, cucumber and guava had been destroyed during the past one week, corporation health officials claimed. About 134 litres of coloured drinks were seized at different parts of Calcutta.

But the pavements of the Central Municipal Building itself were occupied by a number of fruit-sellers even on Friday. The fruit was however, destroyed after it was brought to the notice of the corporation Health Department. There were a number of makeshift stalls in the corridors of the building selling fried food.

Meanwhile, a spokesman of the Water Supply Department said on Friday that there were "numerous" leaks in the water mains in Tiljala-Picnic Garden areas. Some

had been repaired only after the outbreak was reported. The possibility of contamination of drinking water by seepage of drain water through these leaks could not be ruled out. Moreover, chlorination of water at Tallah and Palta would not have much affect in these areas, he said, since those were mainly Tube-well-fed areas.

Instillation of chlorination plants at the overhead tanks for each deep tube-well is imperative for the water supply system, the spokesman said. But there was not a single such plant at these overhead tanks, in this affected areas, he added. There were 14 overhead tanks in the Tollygunge belt, four of them being in the Tiljala area.

The Water Supply Department had repeatedly informed the Corporation authorities about these drawbacks. Six plants had been recently installed in the Tollygunge area but they were yet to be commissioned, the spokesman said. The officials of the Water Supply and Health Departments were not in a position to say as to what preventive measures were taken in the absence of these plants.

Tiljala, Picnic Garden, Tangra and many other fringe areas in the city were prone to such diseases, some civic officials said, and felt that they were always ignored. Attacks of gastro-enteritis and cholera were frequent in these areas and had surprisingly been regarded as a "usual feature", they added.

CSO: 5400

BRIEFS

CONJUNCTIVITIS IN HIMACHAL PRADESH--Nahan July 23 (PTI)--Conjunctivitis have broken out in an epidemic form in some parts of Sirmur district and Harans in Himachal Pradesh according to reports reaching here yesterday. [Text] [New Delhi PATRIOT in English 24 Jul 81 p 5]

UNIDENTIFIED DISEASE IN DACCA--The unidentified disease that was a horror for some parts of the country during the past few weeks has trekked into the Metropolitan city, reports BSS. According to reports one Golam Rasul, 40, and five others of Nabendra Basak Lane (Nawabpur) Dacca suffered from symptoms this week with swift inner sensation in the toe spreading upward. Gelam Rasul was immediately taken to local exorcist who made some razor blade incision on the hand and removed "black blood" for his cure. The exorcist, Abdul Ghani of BCC Road, has some more patients of this kind. The disease is reported to cause swift inner sensation to quickly run upward to the trunk to death. [Text] [Dacca THE BANGLADESH TIMES in English 9 Jul 81 p 1]

MYSTERY DISEASE DEATHS DENIED--Health and Population Control Minister Professor M.A. Matin on Friday told the Jativa Sangsad that none died of any mysterious disease in the villages of Ghlor police station of Manikgani subdivision in Dacca district. Local and International experts have recently conducted extensively surveillance in the villages of Jabra, Tara, Mail agi and Ghlor of Manikgani on the basis of a newspaper report and did not find the incidences of any mysterious disease, he added. Replying to a call attention notice by Mr Nizamuddin Khan (BNP) from Manikganj about the attack of an unknown disease and cases of deaths in the subdivision the Health Minister said that a team of local and WHO experts undertook immediate investigation into the allegation and found some people suffering from fever restlessness body ache and afflicted with malarial parasite. None of the patients was in serious condition, he said. The Health Minister said that the Health Department was completely aware of the outbreak of any disease and actions are taken promptly. He assured that if needed, medicines will be supplied to meet any local requirement. [Text] [Dacca THE BANGLADESH OBSERVER in English 5 Jul 81 p 12]

GUINEA WORM DISEASE PREVENTION--New Delhi, 31 July--The prevention of Guinea worm disease, a major water-borne disease in the third world, has been adopted as major target for the decade. According to G Arthur Brown, Deputy Chairman of UNDP, and Chairman of the UN Inter-Agency Steering Committee for the Decade, its prevention is neither difficult nor expensive. Guinea worm is transmitted by drinking water which contains a crustacean waterflea called cyclops. It affects rural communities in India, Pakistan, Iran, Sudan, Uganda and West Africa from Chad to Mauritania and Ghana. The disease inflicts 10 to 48 million people annually with open sores, severe discomfort and inability to work. Its debilitating effects mean thousands of hours of lost agricultural productivity each year for third-world farmers. [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 2 Aug 81 p 6]

ESTABLISHMENT OF MEDICAL TRAINING FACILITIES IN RAMSAR ADVOCATED

Tehran KASHAVARZ in Persian 22 Jun-22 Jul 81 pp 18-19

[Article by Dr Seyyed Kamaledin Nabipur]

[Excerpts] For years now the people of our country have been suffering from a shortage of physicians, or, rather, of needed medical cadres. In our country, physicians, dentists, pharmacists, public health technicians, midwives, nurses, dental technicians, assistant pharmacists, nurses' aides, health workers, assistant health workers, physical therapists, health investigators, vaccination technicians, laboratory technicians, social workers and scores of preventive and curative medicine groups who are needed for a healthy environment are so few that they cannot respond to even one-third of the actual needs of society.

In the past, in order to solve this difficulty, a number of medical schools, dental schools and pharmacy schools were opened in Mashhad, Tabriz, Esfahan, Shiraz, Ahvaz and elsewhere, as well as some higher institutions to train midwives, nurses, health workers, assistant health workers and others, wherever there was an equipped hospital. However, even these have been unable to solve the problem. As a result, the people have been vociferously complaining about the shortage of medical cadres; this forced the officials in charge to hire foreign physicians from India, Pakistan, the Philippines, etc. In a few months, these foreign colleagues' contracts will be expiring. Because of the departure of some Iranian physicians, who left the country for various reasons, thus selling their countrymen in the belief that they would have the possibility for an easier life by going abroad, the concurrent imminent departure of the foreign doctors from Iran makes this shortage felt more than ever before.

We are aware that doctors, or, better to say, medical cadres, are the cornerstone of each society's health, and we must always bear in mind the fact that any negligence or inattention to this need of society will end up costing the lives of tens, hundreds and thousands of innocent people.

The shortage of physicians is not only noted in Iran, but also in most of the world, the reason being that medicine is one of the most difficult sciences, and training in this field is one of the longest and most expensive, with the work of doctors, dentists and pharmacists being exclusive to themselves. Therefore, doctors must practice medicine unceasingly, from the beginning of their career to the end of their lives; they cannot entrust their work to someone else, be it only for one hour, because this is a very sensitive field. With great clairvoyance, a physician must find out about the smallest noticeable sign to the largest invisible flaw. Let me give an

example: when something goes wrong with your car's motor, an engineer or a mechanic can turn on the engine; he then lifts the hood and tests the spark plugs, the points, the coil, the battery, the wiring, the carburator, etc. In case no defect is found, he will take apart the suspicious piece, find the malfunctioning with his naked eye and fix it. But in the medical field, if you have a headache and take an aspirin to relieve it, if this headache is a result of a cold, the aspirin will cure it; however, in many cases, the headache may be a sign of sinusitis, migraine, poor vision, meningitis, inflammation of the brain, constipation, typhoid, typhus, undulant fever and scores of other infectious diseases, or of high blood pressure, fatigue, insomnia and hundreds of other diseases that cannot fit into this brief summary. The detection and treatment of each of these diseases cannot be compared with another, and therefore, it is not possible to open someone's head and look inside. Even supposing that this could be done, it still would not be enough. It is also not possible to prescribe drugs for them on an experimental basis. It is only possible to do so through small symptoms exceeding the thousands. In each case, doctors must resort to their knowledge and rely on their memory for diagnostic purposes. In many cases the symptoms are so similar that it is impossible to diagnose the disease, and often, the symptoms of one disease vary from person to person and are even contradictory; the diagnosis then becomes so difficult that one must resort to a number of tests, each one of them requiring a specialist. This imposes heavy expenses on the patient or the hospital.

Moreover, because of the ever-increasing changes that are taking place in the life of the people and the fact that rapid travel opportunities exist between various points of the world, unknown diseases are transmitted from one area to another. At any rate, the new treatments that present themselves in the medical field increase diagnostic and curative ability for special reasons, and physicians must keep themselves up to date with these changes and this information to the end of their lives. They would, otherwise, expose themselves to ridicule by others. Therefore, doctors must always keep informed, even if this information is subject to change every day. Unlike religious principles that always follow one main point, and ancient books which permanently benefit from their special value, there are daily discoveries in the medical field.

Radioactive rays--of which there was no knowledge and which bore no name until some years ago--have now become one of the new dangers on earth. They must be recognized and people should avoid their side effects.

Considering the fact that we need to train and educate people as medical cadres, this is a vital issue at present, and we must try to carry out this task as economically as possible and to establish medical, pharmacy, dental and paramedical schools wherever hospital facilities and educational cadres require it. Ramsar is one of the localities with an equipped hospital possessing sufficient capacity, and has quite a few medical specialists who have worked and are still working in universities, both in Ramsar and Tonkabon. Moreover, the existence of large, old hotels solves the problem of housing for professors and students. Considering our society's dire need for this sacred profession, the existence of this possibility allows us to use these facilities. For the sake of the deprived people who have no access to these facilities, let us take a step toward educating the country's younger generation on the road to achieving training in this needed and indispensable field.

Withholding proper attention from this important and vital issue is blasphemous ingratitude; and in order to be delivered from the painful torture that almighty God has warned about, these basic points should be accorded full consideration.

It is necessary that those brothers in the capital who make the decisions for the people proceed rapidly in the establishment and expansion of medical, dental, pharmacy and paramedical schools in Ramsar.

CSO: 5400/5522

BRIEFS

CHOLERA IN WEST POKOT—An outbreak of cholera has been reported in Sekker Location, West Pokot District. Confirming this, the Kapenguria Medical Officer of Health, Dr. P. Gaturuku, said seven cases had proved positive. Five of the victims, two of them women, came from Sigor, while the other two came from Lomut and Chepareria trading centres, the doctor said. All the victims received treatment and "are in safe condition," he said. Dr. Gaturuku called on the public not to panic as stringent measures had been taken to stop the disease from spreading to other areas.--K. N. A. [Text] [Nairobi THE STANDARD in English 6 Aug 81 p 3]

CSO: 5400/5237

GOVERNMENT REPORTEDLY FAILS TO ACT AGAINST EYE DISEASE OUTBREAK

Islamabad THE MUSLIM in English 26 Jul 81 p 3

[Text]

ISLAMABAD, July 25: The menace of the rampant eye infection is increasing at an alarming rate in the sister cities of Rawalpindi and Islamabad and the number of affected persons reporting at local hospitals for treatment today exceeded the staggering number of 450. The Government, however, has yet to take any initiative to combat the infection or even inform the people of any precautionary and remedial measures.

The hazards of the eye ailment to the public, as one doctor maintained, were transmitted through physical contact and it was, therefore, of a prime importance that citizens be made aware of the necessary precautionary measures.

The agencies responsible for combating this menace seem to have turned a deaf ear as no media publicity in this direction has been taken in hand by the Government.

The Director General Health made a Press statement the other day advising the public to use cold water for treatment of infected eyes. This, however, could not have been of much help as it failed to mention how the disease spread and what preventive measures were called for.

During today's survey of the City hospitals it was revealed that Rawalpindi Holy Family was the only hospital where measures have been taken to deal with the situation on an emergency footing. Here again, a voluntary social agency, the Rawalpindi Eye Donors Organisation, rather than the Government, has taken the lead. The organisation has established a separate department for this purpose. President of

the Organisation informed that the department would provide free medicines to the poor patients and work round the clock.

Today was the fourth consecutive day of AVT (Adeno Virus Type) eye ailment, in the sister cities and the local hospitals were flooded with young and old alike. It may be recalled that the affected patients' number started from 80 a day and has now risen to 450. About 10 eye specialists are busy round the clock providing medical treatment to the patients. People were seen making long queues in this unkind rainy season in front of hospitals and private clinics.

A local eye specialist has, however, advised the public against using personal belongings of the affected persons. He said that quarantine for some days was advisable for the patients, and others should avoid using his towel and other items of daily use.

CSO: 5400

EYE DISEASES PREVALENT IN VARIOUS AREAS

In Multan

Lahore THE PAKISTAN TIMES in English 23 Jul 81 p 6

[Text] Multan, July 22--Epidemic of eye disease has broken out here. Some 40 patients are reportedly approaching Nishtar Hospital here every day for treatment. The disease reportedly reached the town from Faisalabad.--PPI

In Sargodha, Khanewal

Lahore THE PAKISTAN TIMES in English 26 Jul 81 p 6

[Text]

SARGODHA, July 25: The contagious eye disease 'Viral Conjunctivitis' has spread here and in the surrounding areas in epidemic form.

To make matters worse the eye-specialist of the local DHQ Hospital has been transferred.

It needs to be pointed out that the local DHQ Hospital has no sanctioned post of eye-specialist whereas DHQ hospitals at Mianwali, Jhang and Faisalabad have them. The Faisalabad DHQ hospital alone has 10.

The transferred eye-specialist here was working against the post of Sheikhupura (he worked here but got his salary from Sheikhupura). This practice is common in the Health Department. He was made available to

the local DHQ Hospital by the then Health Adviser in view of the pressing public demand.

Our Khanewal correspondent reports that the eye disease is afflicting a majority of the population, and spreading fast to other areas.

The Civil Hospital appears to be helpless against the disease

Editorial Comment

Lahore THE PAKISTAN TIMES in English 25 Jul 81 p 4

[Editorial: "A Troublesome Virus"]

[Text]

The public should be relieved to learn that the mysterious eye disease spreading first in Karachi last month and travelling in epidemic form northward via Hyderabad and Multan to Lahore and Rawalpindi, is not a serious complaint or a mystery. Major-General M.I. Burney, Executive Director of the National Institute of Health, has stated that a team of experts from the institute has identified the troublesome virus as enterovirus-70 (EV-70). This virus has made an appearance on our planet (and in Pakistan) before at various times and places causing the condition haemorrhagic conjunctivitis (AHC) which the layman would call inflamed eyes. Sore eyes is a highly contagious malady, there is no instant remedy, and it takes its course before subsiding and at best requires simple hygiene and care. The doctor has calmed fears that the current eye epidemic results in any eye-impairment; it is simply a nuisance that passes and from which those still unaffected require protection. That good old recipe, Boric lotion, is all one needs; no antibiotics will help. This, too, is a relief as there has been a rush on eye drops and eye ointments of every description and these have become scarce at the chemists. No specific treatment for the virus infection has yet been discovered. The sufferers are advised to isolate themselves for a few days. This may be possible for patients, but for people about their daily business to avoid crowded, congested places is not so easy. Our jammed trains, buses and wagons are happy hunting grounds for every type of germ and virus and our people's careless ways a ready means of accommodating and spreading them. The initial rapid spread of the eye-infection can be attributed in large measures to the generally poor public health arrangements in our cities along with the absence of a sense of civic responsibility among the people. Although fears regarding AHC and its severity have been allayed by a knowledgeable spokesman, the epidemic is still very much with us. One awaits the departure of EV-70 from our midst.

BRIEFS

VIRAL CONJUNCTIVITIS REACHES LAHORE--Lahore, July 19--More than half of the population of Lahore is having red and sour eyes today from a rapidly spreading viral conjunctivitis, a debilitating eye disease which have tormented the people of Karachi for more than a fortnight. According to the doctors, the disease had taken sometime to reach the Punjab, but once it was here, the contagious spreading had been quick and swift. They said that the disease was rapidly spreading because the people generally were not adopting necessary precautions. The only sure remedy against the disease spreading still further, they said, was a self-imposed quarantine on the part of those suffering from it. The doctors have also advised the people to avoid visiting clinics unless absolutely necessary. Meanwhile, the sunglasses and eye-drops have run in short supply in view of their large-scale demand during the past few days.--APP [Text] [Karachi MORNING NEWS in English 20 Jul 81 p 7]

CHOLERA HITS SAMUNDRI--Sumundri, July 18--An outbreak of Cholera in epidemic form here has caused panic in adjoining villages. Local citizens have called for a total ban on the sale of ice-balls and substandard "kulfis". [Excerpt] [Islamabad THE MUSLIM in English 19 Jul 81 p 7]

EYE AILMENT LIKELY TO INCREASE--Rawalpindi, July 23--The recent eye ailment spreading in the country is likely to increase within next few weeks and more cases of the disease are expected to be reported, yet there is no likelihood of any danger to the eyes caused by this disease. The disease has now broke out in the sister-cities of Rawalpindi and Islamabad and the number of patients has increased considerably. About 30 patients are visiting various local hospitals daily, according to a survey conducted by the PPI here today. The Director-General Health has suggested the use of boric-drops instead of biotics. However, the doctors said that there was not danger to the eye sight. The Public should not be impatient as there was no cause for alarm. They said it could be overcome by proper hygienic measures. The doctors said a self imposed quarantine for some days, by the patients would certainly help in the prevention of further spread of the disease. -PPI [Text] [Islamabad THE MUSLIM in English 24 Jul 81 p 3]

GASTROENTERITIS IN SARGODHA--Sargodha, 8 Aug--With the eye disease epidemic still very much there, gastro-enteritis has also broken out here. While four cases have been admitted to hospital others are taking place all over the city. Gastro-enteritis symptoms are pain in the stomach, frequent motions, light fever and dehydration. The impure water supply and defective sewerage system are stated to be responsible for it. [Text] [Lahore THE PAKISTAN TIMES in English 9 Aug 81 p 5]

STATISTICS ON GASTROENTERITIS, RESPIRATORY DISEASES

Manila BULLETIN TODAY in English 5 Aug 81 pp 1, 9

[Article by Chito Parazo]

[Text] The Ministry of Health (MOH) reported yesterday that 57 Metro Manila residents, mostly children, died of gastroenteritis and respiratory diseases over the past 30-day period.

MOH officials, however, assured the public that there are enough drugs, including medicines, to be given free to indigent families confined in various government hospitals.

San Lazaro hospital (SLH) Director Cesar Uylangco said that the two diseases usually break out at this time of the year.

Figures at the SLH showed that for the month of July,

1,865 gastro-enteritis cases were admitted at the hospital.

Of the 1,865, 41 died. Most of the 41 were already badly dehydrated when admitted, doctors said.

Statistics also at the SLH showed that 429 persons, mostly children, were stricken with pneumonia and other respiratory ailments, and confined at the SLH since the first week of July.

As of yesterday, there were still 119 gastro-enteritis patients and 69 pneumonia cases at the SLH.

Director Uylangco assured the families of the patients there is an ample supply of medicines for indigent families.

Health Minister Jesus Azurin was reported to have instructed the disease

intelligence center to assist the patients get the proper medicines.

MOH officials said that they would prevent a repetition of what happened in 1979 when some patients, most of the children died due a shortage of drugs at the SLH.

Relatives of patients complained that items like cotton balls were being used several times before they were discarded because of scarcity.

Meanwhile, Uylangco urged the public to avail of the free cholera El Tor immunization program at the SLH.

Uylangco also said there was a slight increase in the number of cholera-El Tor patients being admitted at the hospital.

To prevent gastro enteritis from breaking out, Uylangco said, food must be washed thoroughly before cooking.

He advised that water pipes be checked or leaks.

CSO: 5400/4955

DRIVE AGAINST MALARIA, 'SCHISTO' INTENSIFIED

Manila BULLETIN TODAY in English 11 Aug 81 p 28

[Text] The Ministry of Health will intensify its eradication and control programs for malaria and schistosomiasis, two of the major public health problems in the country, Health Minister Jesus C. Azurin said yesterday.

Out of the P2.1 billion MOH budget for 1982, P29,629,000 will be set aside for the malaria eradication service (MES) while P20,965,000 will be allotted for the schistosomiasis control and research service.

Meanwhile, Director Delfin Rivera of the MES has sent five spraymen to Siaton, Negros Oriental where 313 people were reportedly positive for malaria caused by Vivax, a particular type of mosquito.

According to Dr. Rivera, the total number of positive malaria cases are expected to be reduced from 105,750 in 1980 to 100,462 in 1981 and on to 95,438 in 1982.

He said that this will be possible through the residual spraying of some 250,000 houses in areas where five per cent of the total number of slides examined were found positive for

malaria and another 200,000 houses in areas with a lesser number of malaria cases.

Other measures targeted to reduce the incidence of malaria by 1982 are focal spraying of some 30,000 houses, case detection in 200,000 houses every eight weeks, examination of blood smears, and the propagation of mosquito larvae-eating fish in breeding areas.

Dr. Rivera, however, reported difficulties in eradicating malaria due to problems in operations and a growing number of persons found resistant to anti-malaria drugs.

Meanwhile, the schistosomiasis control service of the MOH will focus its efforts on treatment, health education and case finding.

Schistosomiasis or snail fever, a disease caused by a blood worm transmitted through a tiny fresh water snail, was found to be another important tropical disease in the country outranked only by tuberculosis and malaria. (M. C. Rodriguez)

SENEGAL

BRIEFS

REFUSAL OF AID IN MEASLES EPIDEMIC--When a measles epidemic broke out in Khogue, the villagers asked the deputy chief surgeon of Linguere medical district for help. The latter, without a shred of humanity, closed his door to them. He is, however, responsible for the Linguere PS [first aid post] station. The juvenile population of Khogue suffered many deaths. [Excerpt] [Dakar JAAY DOOLE BI in French No 22, 15-31 Jul 81 p 3] 9380

CSO: 5400/5233

OUTBREAK OF INFECTIOUS HEPATITIS REPORTED

Victoria NATION in English 4 Aug 81 p 2

[Text]

THERE is now an outbreak of infectious hepatitis on La Digue. During the past two weeks, 12 schoolchildren have been admitted to hospital with the disease.

Infectious hepatitis is caused by a small germ called a virus. It is transmitted from one person to another through contaminated food, water, milk, or by direct contact between an infected person and a non-infected person.

The infected person falls suddenly ill with a fever, loss of appetite, nausea (maloker), vomiting, pain in the back, limbs and right upper side of the abdomen. After four or five days the person develops jaundice (yellow colouring of the skin and eyes). This usually lasts seven to ten days.

Sometimes it may last longer. The urine becomes dark and the stool pale.

The most important way of controlling this disease is by the proper disposal of sewage, preventing it polluting drinking water, using the toilet properly, washing hands after the toilet and before handling food, and boiling all untreated drinking water.

The Department of Health has started giving immunisation to all schoolchildren on La Digue, all members of the family of affected children as well as health staff and teaching staff in the school.

The public of La Digue are advised to contact the staff at the clinic if they develop any of the symptoms mentioned above (fever, pain in right upper part of the abdomen, loss

of appetite, and vomiting with dark urine and pale stool).

The treatment consists mainly of bed rest for two-three weeks, with a diet consisting of plenty of fruit juice and starch-rich foods such as bread, potatoes etc and avoiding any fatty foods such as meat, butter, margarine etc. Only schoolchildren and families of affected children will be immunised now together with the teachers and health staff.

The Health Department will closely monitor the situation and will decide on further steps depending on the result of this immunisation campaign and advice to the public in La Digue to ensure a high standard of personal and environmental hygiene.

BRIEFS

CHOLERA CASES—A total of 34 cholera cases have been confirmed in Swaziland ever since the outbreak of the disease last November, the Minister for Education Sen. Canon Siphethe Dlamini, deputising for the Minister for Health disclosed in the House of Assembly last Friday. Only four of the cases have resulted in deaths. In the Pigg's Peak area alone, 25 cases of cholera were confirmed: at Mvutjini, about five kilometres from Mbabane four; Nkoyoyo near Mbabane and Sithobela in the Shiselweni district, two each and only one at Mounduza. The total number of specimens taken during this period is 384. The Minister assured the House that surveillance was continuing and that sporadic occurrences as outlined were all under control. The Minister, who was responding to questions by Prince Maquba, said his Ministry did not report suspected cases, but confirmed cases after laboratory tests have been carried out. Prince Maquba had among other things wanted to know how many people have so far died as a result of cholera. He also asked why the Ministry of Health did not report the outbreak of cholera which resulted in two deaths in the Sithobela area recently until it was disclosed by the Prime Minister about 10 days later. [Text] [Mbabwe THE TIMES OF SWAZILAND in English 4 Aug 81 p 1]

CSO: 5400/5235

RABIES DEATHS, PREVENTIVE MEASURES

Dar es Salaam DAILY NEWS in English 6 Aug 81 p 3

[Article by Anaclet Rwegayura]

[Text]

SIX persons have died of rabies and 65 others were treated against the disease after being bitten by rabid dogs in four districts of Arusha Region, it was revealed in Arusha yesterday.

The Regional Livestock Development Officer, Dr. Cuthbert Hatibu, has meanwhile confirmed that cases of the fatal disease had lately increased in some parts of the region, but urgent control measures, including vaccination and destruction of stray dogs and cats, were being taken.

However, the number of rabies victims of official record is probably moderate as unconfirmed reports from villagers indicate a higher toll.

Dr. Hatibu said between February and July 20, this year, Arusha District reported

35 persons bitten by rabid dogs and three deaths.

Arumeru District recorded 19 persons bitten and two deaths while in Hanang District, (11) persons were bitten and treated with one similar case and one death in Mbulu District during the period.

Lack of shotgun ammunition from the Agricultural and Industrial Supplies Company (AISCO) in Dar es Salaam has for a long time been a major impediment in executing the anti-rabies onslaught in the region.

The people have thus been advised to tie up and club to death all stray dogs and cats while arrangements to import ammunition proceed.

Dr. Hatibu said that 60,000/- in foreign exchange had already been approved for Arusha Region to import approximately 12,000 rounds of ammunition.

CSO: 5400/5231

TANZANIA

BRIEFS

LINGERING CHOLERA EPIDEMIC--Kigoma--Workers of Kigoma Region have been reminded of the importance in adhering to anti-cholera rules in order to wipe out the epidemic that still lingers in the region. In a report to the Regional Development Director, the Regional Medical Officer expressed his concern over the uncontrolled movements of people in the region. [Text] [Dar es Salaam DAILY NEWS in English 7 Aug 81 p 3]

CSO: 5400/5231

HEMORRHAGIC FEVER IN HO CHI MINH CITY

Ho Chi Minh City SAIGON GIAI PHONG in Vietnamese 28 May 81 p 4

[Article by N.T.: "Regularly Doing Sanitation Work Is Efficient Way to Prevent Hemorrhagic Fever"]

[Text] Following the first rainfalls of the season, mosquitos are multiplying and hemorrhagic fever incidence is on the increase. According to statistics of the city sanitation and epidemiology station, since the beginning of the month, 170 people have been admitted to hospitals because of the disease. Most patients are children under 12 years of age. The doctors focus the people's attention on the fact that there now are no specific drugs against hemorrhagic fever, and that the key to prevention is to avoid mosquito stings.

Sanitation and epidemiology units in precincts and districts are spraying DDT in places where the density of disease-carrying mosquitoes is high. The people should actively help sanitation cadres properly carry out this work before the heavy rainfalls in early June. At home, the people should raise 7-color fish in containers to exterminate mosquito larvae.

In precincts bordering the city or lying in the suburbs, they should organize catches of 7-color fish for distribution to their own areas and also to other friendly precincts.

Dredging sewer pipes and ditches, regularly doing general sanitation work in precincts or villages where one lives, is an effective way to prevent the disease. Experiences from previous years show that as a result of heavy rainfalls there are sewer pipe clogging, flooding and environmental pollution; and the disease could easily erupt into an epidemic with considerable damage to our people's health.

9213

CSO: 5400/4623

BRIEFS

DISEASE CONTROL MEASURES--Ndola Urban district council has taken measures to control the spread of infectious diseases among the residents. The campaign which was launched a few months ago involves immunisation, spraying of houses and the clearing of stagnant water. According to the latest council minutes, the campaign was aimed at controlling the spread of cerebral-spinal meningitis, malaria, tuberculosis (as printed), leprosy and polio. Because of the immunisation campaign carried out in schools and among the public, there have been no cases of meningitis, polio and tuberculosis traced recently. The council carried out an anti-malaria campaign in which a total of 1,688 houses were sprayed and 215 stagnant pools of water covered. A total of 44 cases of leprosy were traced and during the same period, 902 people were vaccinated against cholera and 54 against yellow fever. [Excerpt] [Lusaka TIMES OF ZAMBIA in English 6 Aug 81 p 5]

CSO: 5400/5234

U.S. EPIZOOTIC DISEASE RAVAGES BRITTANY OYSTER BEDS

Paris LE FIGARO in French 22 Jul 81 p 6

[Article by Pierre Kerlouegan: "The Belon Oyster--Victim of a Parasite"]

[Text] The flat oyster, the "Belon," will become increasingly rarer at fish market stalls. Produced solely in Brittany, it is the victim on the north coast of an epizooty which is beginning to spread to the south coast, especially to Quiberon Bay. The first results: from Saint-Malo to Camaret more than 70 percent of 3-year old oysters, those fit for consumption, have died--a loss of Fr 75 million for the oyster farmers. Powerless before the disease, they have only one hope: to see the rest of the stock spared by the malady.

As for the consumer, he can set his mind at ease. If he finds "flat oysters"--but at what price?--he can gulp them down without fear; the ones that are for sale are wholesome. In any event, the parasite ravaging the Breton oyster beds is innocuous to man.

To yawn like an oyster: for a year the expression has taken on a tragic meaning for the north coast raisers who are seeing the shellfish which they are ready to harvest open all by themselves. As always in such a case, the Institute of Fisheries gave its diagnosis: the "flat oyster" is the victim of a parasite, *Bonamia*, brought here in 1979 by seed oysters purchased in the United States.

After having destroyed three quarters of the oysters of marketable size last year, this *Bonamia* is now attacking the youngest generations. "It is the most virulent in summer and in the beginning of autumn," explains Guy Berthou, oyster farmer in the Brest roadstead and president of the regional shellfish raising station of North Brittany. "In 3 or 4 months, we will be able to measure the extent of the disaster but it may be feared that the entire coast will be totally devastated before the end of the year. Last year Brittany produced 10,000 tons; this year with a great deal of luck and if Morbihan is not too badly affected, it will yield scarcely a thousand."

A Chilean Oyster to the rescue

What can be done in view of the epizooty? Since we do not have, and are not even able to administer, a vaccine, as is done with epidemics, all that can be done is to destroy the diseased shellfish. Now the oyster farmers are reluctant to do so.

"The farmers kill their animals when there is hoof and mouth disease," they say, "but they are indemnified by the state. That is not anticipated for us."

The oyster farmers become more critical when they allude to the 1970 epizooty, the one in Martellia which destroyed all the "flat oysters" between Brest and Paimpol, then the shipwreck of the "Amoco Cadiz" oil tanker, 8 years later, following which the oysterages in the river mouths and Morlaix Bay were polluted. "We asked them to replace our species which has been twice devastated, but the authorities didn't listen to us," Berthou complains. "We have just now obtained the authorization to catch a species of flat oyster which seems resistant to Bonamia, in the Brest roadstead. On the other hand, there is an oyster in Chili which could perhaps do the job. Four of us went there and brought back 80 kilograms of them in our luggage. That is hardly sufficient to institute the indispensable tests."

In fact, an attempt must be made to acclimatize this "Ostrea chilensis," which could replace the failing "Ostrea edulis" in Brittany, as was done in Marennes with the Japanese oyster in 1971, when the Portuguese oyster succumbed to a mysterious malady.

This will require close to 3 years of observations. If the results are favorable, all that will remain will be to import seed oysters—that is to say, baby oysters—which will yield an edible product 2 years later, or 5 years in all for Brittany to produce "flat oysters" again.

An immediate consequence of the epizooty: the Brittany oyster farmers, especially those who raise only "flat oysters", will hire few or no seasonal workers in September; some, in fact, are already laying off some of their permanent workers. In all 2,300 wage earners are threatened.

Without a reversal of the situation, the Bretons are going to go through several difficult years, even if the hollow oyster still flourishes. For this reason they have just turned to the authorities for help, i.e., a decrease in rent which is FR 780 per hectare of concession, extension of current loans, takeover by the banking interests and indemnification for the parasitized stocks.

"France spends millions of francs each year for aquaculture which yields nothing," says the oyster farmers. "Why wouldn't it do anything for us when we are the best producers in the world and when we could produce more and thus export more?"

9380

CSO: 5400/2169

BRIEFS

PLEURO-PNEUMONIA ANIMAL QUARANTINE—Following an outbreak of contagious animal pleuro-pneumonia in Kinango division of Kwale District, the District Veterinary Officer, Dr. J. Muzungu Charles Kimaru, has announced the area will remain under quarantine until further notice. The quarantine notice takes effect immediately. The disease affects lungs of goats. Dr. Kimaru said all goats in the affected area would be restricted from moving to other areas in the district to avoid the spread of the disease. Anybody found violating the directive would be prosecuted, he warned. A team of veterinary staff from his office has been sent to the area to vaccinate all goats, he said. Dr. Kimaru appealed to wananchi in the area to co-operate with his staff.--K. N. A. [Text] [Nairobi THE STANDARD in English 6 Aug 81 p 9]

FOOT-AND-MOUTH IN KWALE—The Shambweni Division in Kwale District has been put under quarantine following an outbreak of foot-and-mouth disease. The Kwale District veterinary officer, Mr (Kimaru), said that no livestock or their produce would be moved within or from the area to other places. [Text] [EA230327 Nairobi Domestic Service in English 1600 GMT 22 Aug 81]

CSO: 5400/5240

RINDERPEST-LIKE DISEASE NOTED AMONG TAHOUA LIVESTOCK

Niamey LE SAHEL in French 30 Jul 81 p 3

[Article by Sahabi Bouda]

[Text] Grazing conditions in a portion of the northern part of the Tahoua department are currently far from satisfactory. Also, herdsmen are complaining about the rinderpest-like malady called "pestiform" which has lately been attacking ruminants. Our correspondent, Sahabi Bouda, explored the problem with the official in charge of livestock raising. The latter has this to report:

We have hope, but there will probably still be a lot more rain. At this time, I do not know if you have made a tour of the Tchintabaraden region, but we are aware of a number of pockets. Among others, we have one pocket which seems permanent; it is a triangle contained between Abalak, Kaoukaou, and Tounfaminir. A pocket I noted last year, and which this year is growing nothing. Also, we have a north of Tillia, north of Egarik even, between Egarik and Moide.

With regard to sheep and goats, this is something that touches me deeply. During a tour I made with the head of the stock-raising and animal industries service over the entire extent of the department and even over other departments, including Maradi and Agadez, the stockmen told us about a disease, and virtually all of them spoke about the same disease, in every department: it is a disease which is characterized by pulmonary ailments, by digestive ailments, which we veterinarians have decided to call "pestiform" disease, because it resembles rinderpest. But a precise diagnosis has not been made, and I think that the stock-raising service is in the process of taking steps to obtain a precise laboratory diagnosis, so we can fight against this disease, whether by vaccinations (if we can create the vaccines) or by adequate treatment.

In any case, it is a disease which has stricken many small ruminants.

We also have other disease problems; we have parasitism which comes with the beginning of the rainy season; we have others which are not of microbial origin but which are brought about by the rainy season; in other words, every time there is a heavy rain in certain areas, the animals succumb. The animals, you know, in certain areas are not particularly sheltered, and when there are heavy rains, when the streams are flowing, the animals are swept away. We have had enormous damage in the Itinawa region where we have been told that more than 500 head of stock are dead, though we have only been able to count a little more than 200.

ANIMALS WITH HOG CHOLERA SOLD TO MARKET

Manila BULLETIN TODAY in English 3 Aug 81 p 40

[Text] Calaca, Batangas, Aug. 2--Concerned citizens here have expressed the suspicion that the sickly and dying hogs some unidentified meat dealers are buying from local residents are secretly brought to Metro Manila and butchered for sale to the public.

It was reported that several weeks ago, hundreds of pigs raised in this place and in some neighboring municipalities were afflicted with hog cholera which greatly decreased the swine population in western Batangas.

The disease, local health authorities warned, could be easily transmitted to people who eat the pork of the sick animal.

Municipal livestock inspector Buenaventura Salvacion, however, said the situation, which he described as "a little bit short of an epidemic," was now under control as most of the afflicted hogs had been immunized and cured.

It was learned that some unidentified hog dealers from other towns have been frequenting even the remotest barrios here convincing residents to sell their sick pigs before they die.

Reports said a pig which usually sells for more than P1,000 when healthy could now be bought at a very low price. Some pig raisers also said they were persuaded by the buyers to sell their sick pigs after assuring them that the animals would be first cured before shipping them to Metro Manila.

A resident said that when she refused to sell her dying pig to the hog dealers last week for fear that it would later be sold to the public, the buyers insisted on having the animal by merely asking it for free.

Unsure that many of the hogs raised in the municipality were safe for human consumption, Salvacion said he stopped giving certification to meat dealers who would like to ship the hogs to Metro Manila market. (EGH).

CSO: 5400/4956

ANTHRAX HITS SILOBELA, CATTLE LOSSES HIGH

Salisbury THE HERALD in English 14 Aug 81 p 3

[Text]

MOST people in Silobela near Que Que have lost almost all their cattle through an outbreak of anthrax, leaving them without any means of tilling the land, says Chief Malisa, the traditional head of the district's 87 000 inhabitants.

He said this caused a critical shortage of food—especially in Donsa and Mbombela areas of the district where stocktheft was rife because of the shortage.

Chief Malisa was speaking in an interview at the Silobela Agricultural Show.

Earlier the chief had appealed to the Minister of Lands, Resettlement and Rural Development, Dr Sydney Sekeramayi, who was one of the guest speakers at the show, to provide immediate relief to the district "to save us from hunger because we are starving more than anywhere else".

He told the minister he was happy the problem facing the people would reach the Government directly. "Silobela is a dry place and the land is poor and not adequate."

Water was the biggest problem, the chief said, and the Government should take immediate steps to repair boreholes to save the people and cattle from privation.

His people were spending up to five hours going from one borehole to the other in search of water. He asked: "How can we develop this country without water?"

There were people who spoke about national independence as if it were "a bed of roses", the chief said. "But to us independence without water is nothing but an illusion, and therefore not good enough."

Independence should be an inspiration "to the people to work harder than ever before, because lazy people are an enemy of the country".

Chief Lutho Cephas Malisa (53), until nine months ago a clerk with a Bulawayo transport company, is a dynamic personality with a forthright disposition.

He displays an unusual grasp and understanding of the situation of his people and has the honour of enjoying their confidence, having been elected presiding officer of the village court of his area.

He is quite obviously an unwavering believer in the time-honoured tradition of respect for authority and during his speech fired warning shots at those people "who may think that our independence is a licence to do as you like".

The chief has drawn up a long list of things he wants done for Silobela. The list includes schools, hospitals and clinics, public transport, new roads and the improvement of old ones, a secondary school and a trade school for children whose education was disrupted by the war.

BRIEFS

ANTHRAX CONTROLLED--Balawayo--Several people and cattle have died in the Victoria Province of anthrax and rabies, the acting provincial medical officer, Dr Arthur Heywood, said yesterday. Though 452 cases of anthrax had been reported in all districts in the province since January this year, "there is no need for people to panic as everything is under control now", he said. Bikita has been declared a rabies area and four medical officers have been sent there. People and cattle are being vaccinated in all areas. [Text] [Salisbury THE HERALD in English 15 Aug 81 p 3]

CSO: 5400

BRIEFS

FIGHT AGAINST COFFEE RUST--A massive program against coffee rust is being initiated today by the Ministry of Agriculture and Livestock in cooperation with all the coffee growers of the zones infested by the blight, according to the statement of the minister, engineer Joaquin Guevara Moran. The working plan includes all types of advice, chemical supplies equipment, oils, and fuel. In this operation the coffee growers of the zone affected by the rust will provide the manpower, water, and anything that may contribute to the success of the massive campaign initiated today. Coffee rust has been causing damage in El Salvador's coffee cultivation for the past 2 years, a period during which the Ministry of Agriculture and Livestock has made great efforts to check the disease. We were told that the government has two lines of credit available for infrastructural projects and to insure a sufficient availability of water, equipment, chemicals, manpower, and so on. The minister of agriculture and livestock, engineer Joaquin Guevara Moran, said that only in this way, through joint action by the government and the coffee growers, would it be possible to check the coffee rust blight. [Text] [San Salvador LA PRENSA GRAFICA in Spanish 27 Jul 81 p 3] 2662

CSO: 5400/2182

CAMPAIGN TO COMBAT GRASSHOPPERS REPORTED

Tananariv MADAGASCAR-MATIN in French 28 Jul pp 1, 2

[Text] Several weeks after the debut of the "1981-1982 anti-grasshopper campaign," the various leaders on the island held a vertiable "council of war" yesterday at the Ambatobe Agricultural College. The mere fact that for the first time in dozens of years such a meeting—which is held regularly once a year—takes place this time in the capital city and brings together all the leaders of the island, shows very well the really exceptional nature of the situation.

Public opinion, in general, is unaware of the dangers posed for agriculture in general by these longish little creatures endowed with two wirelike antennae which are generally called grasshoppers. According to Daniel Raniriharinosy, head of the DPCP (plant protection), who yesterday sounded the alarm at the official open of the meeting, the danger has been coming for the last 4 years. Up to now, the area preferred by the grasshoppers was the southern part of the island. Today, the country—with the exception of the eastern region, a basically forested area—is threatened by the grasshopper invasion. Minister Simon Pierre (rural development and agrarian reform), expressed the hope that we would not see a repetition of the grasshopper invasion that hit the country in the 1950's, not even sparing the High Plateaus.

All the same, if concrete measures are not taken, such a situation will be inevitable. Daniel Raniriharinosy cited several figures yesterday. At the present time, 250,000 to 300,000 hectares of ground are in serious need of pesticide treatment, either from the air or on the ground (manually). Now the supply of "pharmaceuticals" presently available to the agencies concerned is not even enough to meet the needs of 70,000 hectares of cultivated land. What is available comes from a national budgetary fund and requests made to international bodies specializing in the struggle against crop pests.

The means are lacking, we said. Even the ranks of personnel, according to the chief of the PDCP, are visibly diminishing, "like an old man's thigh" (Mihena antoerana tahaka ny fen'antitra). This expression, borrowed from a popular proverb, well illustrates the gravity of the situation. Along with that, technical and budgetary resources are also more and more reduced.

On behalf of all the leaders, Raniriharinosy Daniel explained the situation carefully to Minister Simon Pierre. The latter is aware of it, as he emphasized that

"even President Didier Ratsiraka and Prime Minister Desire Rakotoarijaona are very keenly interested in the development of the situation and in the urgent measures to be taken to remedy it."

Indeed, protection of plants against harmful insects and especially omnivores—if only they did not feed on the rice, the sugar cane fields, and other agricultural products, but on other things and somewhere else!—goes back to the 1920's. In June 1932 a center specializing in the struggle against insect pests was established at Betioky. For the protection of plants in general, botanical monitoring was instituted in 1958. Stronger measures have been added over the years, resulting in a gradual reduction in the danger. But at the present time, the phenomenon is reappearing "like a wildfire that must be put out or there will be a "disaster," to use the very words of Raniriharinosy Daniel.

Awareness

One can understand the importance of the need for awareness in a basically agricultural country like ours, and efforts are being made—more and more of them!—to end under-development by the rational and intelligent exploitation—both quantitatively and qualitatively!—of all the cultivable land that is still available. The areas now "in the red" extend far beyond the traditional perimeter going from Ejeda to Ankarabato Ambovombe to Ihosy to Morondava. The Antananarivo Public Disaster Unit is also on a war footing. Just as it is everywhere else in the country. While it may be that the most effective and radical anti-pest measures are still the chemical products which unfortunately are very expensive, Raniriharinosy Daniel nevertheless urges that above all else the attitudes of the peasants toward care of their crops be changed. A film produced recently by Malagasy television showed the seriousness of the problems provoked by locusts. In small numbers they bring smiles to all the children; and if necessary, they can be a boon to the whole family, for grasshoppers are also edible, (a good string of grasshoppers is highly valued, both in the country and even in the city, if there is nothing better to eat!). But a swarm of these insects is extremely destructive. The take-off of a swarm of grasshoppers resembles a mini-tornado and causes a violent wind. The capital was subjected to this tragedy in the 1950's. Without even counting the virtually endless damage these insects cause to agriculture.

For all these reasons, all the agencies concerned are going to lay down during the next week the measures to be taken to combat this plague of nature. They are coming from all of the traditional breeding areas (in the south) and also from the plant protection services of Ambatondrazaka, Tsiroanomandidy, Central Imerina, Antsalova, Fianarantsoa, Antsirabe, and Vohéman. We will have more to say on this subject.

9516

CSO: 5400/5254

BRIEFS

COTTON DISEASE--A new disease called bacteria blight has been identified as being responsible for heavy losses in cotton production in the world. In Nigeria, research has revealed a 15 to 20 percent yield loss due to the disease. Presenting a paper titled "Common Diseases of Cotton and Their Control in Nigeria" at the in-service training course for the agricultural extension workers currently holding at the Ahmadu Bello University Zaria, Dr. E. A. Salako, of the Agricultural Extension and Research Liaison Services of the university said it was the most important economic disease of cotton in Nigeria. Dr. Salako said the disease could be transmitted through the use of undressed seeds adding that the bacterium was both internally and externally seed-borne. The disease, he further said, could be spread by wind when it is about to rain whereby the pathogen in water droplets would be carried from field to field. He said the disease had been in existence since 1965 and was most prevalent in Guinea Savanna and temperate regions. The disease, according to him, could be identified when the plant had water-soaked spots on the cotyledons, angular leaf spot and black spot on the young stems as well as blackish spots on immature bolls. Dr. Salako said the leaves of the affected plant would turn brownish and in most cases dry up. As for the treatment of the disease, Dr. Salako said this could be done through seed treatment, crop sanitation and use of resistant varieties. [Excerpt] [Kaduna NEW NIGERIAN in English 24 Jul 81 p 1]

CSO: 5400/5235

SRI LANKA

BRIEFS

CHILI PLANT DISEASE--Chili crops in the Matale district, the third largest vegetable growing area in Sri Lanka, are affected by a disease. This disease is commonly found in the plantations in Dambulla, Sigiriya, Mikawatura, Galewela, Matale, Walawela, Tenna and Pandiwita and is said to be a problem farmers have been grappling with for the last two years. The signs of leaves turning yellow and brittle with white and brown spots are the common signs of this disease which sometimes destroys the plant entirely. The Central Agricultural Research Station of Gannoruwa is carrying out research on this disease. [Text] [Colombo THE CEYLON DAILY NEWS in English 13 Aug 81 p 4]

CSO: 5400/4957

BROWN PLANTHOPPER INFESTATIONS REPORTED

Hanoi NHAN DAN in Vietnamese 19 Jun 81 p 4

[Text] After doing damage to agricultural production in the southern provinces, brown planthoppers are proving highly harmful to riceplants in both the fifth-month-and-spring and 10th-month agricultural seasons in the provinces and cities of North Vietnam.

Over the past few years, the rice area damaged by brown planthoppers during the fifth-month and spring season has risen from 3,000 or 4,000 to about 40,000 hectares (in the 1980-1981 fifth-month and spring season) and, during the 10th-month season, from 5,000 or 6,000 to 25,000 hectares (in the 1980 10th-month season). Brown planthoppers have harmed all varieties of rice sown and transplanted in the northern provinces and cities, except certain rice strains which can resist these insects and which are being experimentally sown and transplanted on a small area.

In view of the appearance of the brown planthoppers and their deleterious effect in the past few years--especially during the 1980 10th-month season and the 1980-1981 fifth-month and spring season--it is clear that these insects have become an obstacle to intensive rice cultivation in the northern provinces and cities, especially in the Bac Bo delta and in former Zone 4.

The policy advocated by the Ministry of Agriculture is to take all the necessary measures to resolutely prevent brown planthoppers from appearing, doing a lot of damage and developing into an epidemic on large areas and to gradually control and reduce their harmfulness to the minimum within a short period of time.

Right at the beginning of each production season, localities and cooperatives must draw up plans and take specific and appropriate measures to prevent and control brown planthoppers.

Guidance must be provided for satisfactory implementation of the following principal technical measures to prevent and control brown planthoppers:

--Keeping ricefields wholesome

--Sowing and transplanting rice strains whose resistance to brown planthoppers has been confirmed by the Ministry of Agriculture which has authorized their delimited

cultivation in regions affected by these insects. These rice strains are CR-101 (for the fifth-month and spring crop), 1561 (for the late spring crop and the early 10th-month one), NN-3A (for the late spring crop and the early 10th-month one), NN-4B (for the main crop--may be replaced by the NN-22 strain), IR-46 (for the early 10th-month crop and the main 10th-month one) and CR-104 (for the late spring crop and early 10th-month one). The observation and testing of the V-12, CR-203 and other planthopper-resistant strains must be continued.

--Thoroughly eliminating brown planthoppers on seedlings including those for the 10th-month crop, the fifth-month and spring crop and especially the early 10th-month crop.

--Quickly detecting brown planthopper hotbeds and promptly encircling and suppressing them by all means (chemical and vegetal insecticides, petroleum, fuel oil...).

--Using lanterns to trap adult planthoppers when they mature in large numbers.

--Need for various localities to set up and strengthen plant protection organizations in districts and cooperatives and to take care to educate and train those organizations and the cooperative members' households so that they may have the essential knowledge about brown planthoppers (including detection, elimination...).

--Actively and adequately preparing the necessary materials and means at an early date--including brown planthopper-resistant rice strains, insecticides, spray guns, petroleum, fuel oil and so on--to promote the prevention and control of these insects.

While guiding and carrying out the prevention and control of brown planthoppers, one must not neglect to lead the fight against other insects and diseases harmful to the rice crops.

9332

CSO: 5400/4618

BROWN PLANTHOPPERS INFEST 10TH-MONTH RICE SEEDLINGS

Hanoi NHAN DAN in Vietnamese 24 Jun 81 p 1

[Article by Bui Van Ich, head of the Plant Protection Department of the Ministry of Agriculture: "Preventive and Control Measures Against Brown Planthoppers and Other Diseases to Protect 10th-Month Rice Seedlings"]

[Text] Many types of harmful insects and diseases are doing a rather serious damage to the 10th-month rice seedlings, especially those belonging to the early crop.

With a density of thousands per square meter, brown planthoppers seriously damaged the recent fifth-month and spring crop in many areas. With an average density of 50 to 100 per square meter and up to 300 or 400 in certain areas such as Haiphong and Thai Binh, long-winged adult brown planthoppers are now infesting the 10th-month rice seedlings. These insects laid many eggs on the seeds sown prior to 5 June. These eggs have begun to hatch and there are now 300 to 500 young plant-hoppers per square meter in a number of ricefields.

Adult army weevils have been moving from the fifth-month and spring crop to the existing seedlings, with a density of 50 to the square meter in many fields and up to several thousands in some fields. These insects are laying eggs on seedlings and a number of young insects have hatched and begun to damage seedling leaves.

Two-spot stem borer butterflies have appeared and laid countless eggs on seedlings—5 to 10 egg nests per square meter in many fields planted with early crop seedlings. These eggs have hatched and 70 to 80 percent of seedlings have consequently withered in many fields. In certain areas grown mostly with the late spring rice crop, butterflies are continuing to lay eggs on seedlings.

Black-tail green leafhoppers also exist with a fairly high density on seedlings planted in many northern mountainous regions. Rice thrips have been spreading rapidly, especially in seedling fields affected by drought.

In short, rice seedlings in the northern provinces are being damaged more seriously than in the previous years by brown planthoppers and some other harmful insects. These localities need take urgent measures to steer the task of inspecting fields and preventing and controlling harmful insects to adequately protect crops. In view of the specific situation in each locality, the following preventive and control measures may be applied:

1. Lighting lamps to destroy two-spot stem borer butterflies and long-winged adult brown planthoppers.
2. Using bamboo baskets to catch adult army weevils.
3. Picking up nests of eggs laid on seedling leaves by two-spot stem borers.
4. Exterminating these insects by using chemicals according to instructions given by plant protection stations at the provincial and district levels.

The abovementioned measures are being effectively applied by many cooperatives and districts in Haiphong City, Thai Binh, Ha Nam Ninh....

In the process of preventing and controlling harmful insects to protect the 10th-month rice seedlings, the various localities must help cooperatives strengthen their plant protection teams and units and must teach labor groups methods of inspecting, detecting, preventing and exterminating harmful insects. Subjectivism and negligence in preventing and controlling insects harmful to rice seedlings must be avoided and the combined measures aimed at exterminating insects harmful to seedlings and riceplants applied.

9332

CSO: 5400/4618

VIETNAM

BRIEFS

HAIPHONG PEST CONTROL--Brown leafhoppers and other harmful insects have affected 11,000 hectares, or 24 percent, of Haiphong's 10th-month rice area. Nearly 170 fulltime vegetation protection units comprising more than 3,000 members, together with tens of thousands of laborers, have taken to the fields to exterminate the insects. Over the past 5 days, they have saved almost 2,000 hectares of rice from brown leafhoppers. [BK190955 Hanoi Domestic Service in Vietnamese 1100 GMT 17 Aug 81]

HAI HUNG LEAFHOPPER CONTROL--On 10 August Hai Hung Province launched a weeklong drive to contain and stamp out the outbreak of brown leafhoppers which have affected 32,500 hectares of 10th-month rice. Committees for the guidance of brown leafhopper control have been established at the provincial level and in all districts and cooperatives. The province and various districts have sent 500 cadres to the grassroots level to help peasants protect rice. [BK190955 Hanoi Domestic Service in Vietnamese 0400 GMT 18 Aug 81]

THANH HOA CROP PROTECTION--About 30,000 hectares of Thanh Hoa Province's 10th-month rice have been affected by harmful insects, including 12,000 hectares threatened by brown leafhoppers. The province has established a committee for the control of brown leafhoppers at the provincial and grassroots levels headed by the Provincial People's Committee vice chairman. The province has also opened training courses on leafhopper detection and control and supplied more than 30 tons of insecticides to various districts. Thanks to these efforts, 6,000 hectares have been saved from brown leafhoppers. [BK190955 Hanoi Domestic Service in Vietnamese 2300 GMT 17 Aug 81]

BAC THAI HARMFUL INSECTS--To date more than 25,000 hectares of 10th-month rice in Bac Thai Province have been ravaged by harmful insects, mostly by brown leafhoppers, rice leaf rollers and stem borers. Between 50-80 percent of 10th-month rice area in Phu Binh, Pho Yen, Dong Hy and Dai Tu districts are being ravaged by these insects. The province is launching a campaign to eradicate these insects promptly. [BK200955 Hanoi Domestic Service in Vietnamese 2300 GMT 19 Aug 81]

HA BAC HARMFUL INSECTS--To date 16,000 hectares of 10th-month rice in Ha Bac Province have been damaged by harmful insects, of which more than 6,000 hectares have been ravaged by brown leafhoppers. The province is supervising various districts and cooperatives to launch a campaign to eradicate these insects and has sent 10 tons of insecticide to various grassroots agricultural production units. [BK200955 Hanoi Domestic Service in Vietnamese 2300 GMT 19 Aug 81]

THAI BINH HARMFUL INSECTS--Some 1,500 hectares of 10th-month rice and more than 1,000 hectares of other rice have been ravaged by harmful insects in Thai Binh Province, mostly in Dong Hung and Thai Thuy districts. The province is helping various agricultural cooperatives to eradicate these insects, especially brown leafhoppers and rice leaf rollers. [BK200955 Hanoi Domestic Service in Vietnamese 0400 GMT 19 Aug 81]

THANH HAO HARMFUL INSECTS--Thanks to its intense efforts, Thanh Hoa Province has saved 6,000 hectares of rice from being ravaged by leafhoppers. The province has established committees for the guidance of eradicating harmful insects at provincial and grassroots levels and has trained 650 cadres to carry out this task. [BK200955 Hanoi Domestic Service in Vietnamese 1100 GMT 18 Aug 81]

CSO: 5400/4633

BRIEFS

DDT ISSUE--Umtali--Although it is desirable to have DDT banned in this country, all immediate effects of the banning have to be taken into consideration, says the chairman of the Natural Resources Board, Mr Lance Smith. Speaking at the Umtali North Intensive Conservation Area Landowners annual meeting, he said in every aspect of his work in the NRB he tried to take an unbiased attitude to the problems. "If the consequences of banning DDT are more disastrous than allowing it to be continued to be used . . . we have to consider the matter carefully. There are serious threats in certain areas--not only in the agricultural sphere--but I doubt if it can be phased out yet. There is nothing to replace it at this time. I am not making excuses for DDT, but millions of people owe their lives to it. It is a saviour as far as malaria-bearing mosquitoes are concerned," he said. He was just as anxious to see DDT phased out as anyone, providing an alternative could be found. Reacting to a Herald editorial which said the board was lethargic in efforts to have DDT banned, Mr. Smith said: "We are not lethargic, We do a lot of work which must be done quietly . . . and we will continue to work with other ministries involved with the issue, such as health and education." [Text] [Salisbury THE HERALD in English 15 Aug 81 p 7]

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